

# **Historic, Archive Document**

Do not assume content reflects current  
scientific knowledge, policies, or practices.



1.96  
R 315N  
Reserv

SNOW SURVEYS AND IRRIGATION WATER FORECASTS  
COVERING GILA AND SALT RIVER DRAINAGES IN ARIZONA  
WITH GENERAL COMMENT AS TO CONDITIONS IN  
WYOMING, COLORADO AND NEW MEXICO.

SPECIAL SUPPLEMENTAL REPORT  
January 15, 1943

LIBRARY  
CURRENT SERIAL RECORD

★ JUL 27 1944

Precipitation: During December the precipitation in Arizona and western New Mexico was below normal. Soil moisture throughout the higher areas of north-eastern Arizona, Salt and Gila drainages, is reported to be subnormal with present stream flow clear and less than that of a year ago. For the Rio Grande drainage, in New Mexico and southern Colorado, December precipitation was light, especially in the San Luis Valley area. In the upper Arkansas drainage the precipitation during December was less than that of last year. The December 1942 runoff of the Arkansas averaged about 90 per cent of the flow for the same period in 1941. Generally the stream flow in western Colorado was less than for December 1941. Streams in northern Colorado during the fall and early winter have been much above normal and soil moisture conditions good to excellent throughout this area. Precipitation in Wyoming during December was below normal.

Snow Cover: The present snow cover in the mountain areas of Arizona is much less than that of a year ago. On the 10 snow courses, regularly reported over the headwaters of the Salt and Gila drainages in Arizona and New Mexico, the water content of the snow cover at this time is only 25 per cent of that measured a year ago. No snow on the ground in the McNary and Prescott areas. For the Apache National Forest the snow cover is spotted at elevations of less than 7500 feet. The snow depth throughout the southwestern part of Colorado and northern New Mexico is considerably less than it was last winter at this time. Along the Continental Divide, throughout central and northern Colorado and southern Wyoming, the snow cover is fairly good at this time. For this area on both slopes the snow, at lower elevations, is of light coverage. Generally over the mountain country of Wyoming, Colorado, New Mexico, and Arizona the present snow condition is somewhat less in comparison with that of a year ago. The storm, occurring January 16-17, 1943, on the east slope in central and northern Colorado, improved somewhat the snow accumulation throughout this area. The outlook for next season's runoff, as based on present snow conditions, is not promising. The deficiency of late fall and early winter snows in the mountain country is significant of only fair to poor late summer water supply for irrigation. However, the most productive snow months are yet to come and therefore the present picture can be changed materially to that of a more promising outlook for next season's water supply.

Reservoir Storage: Timely precipitation during last September over much of the irrigated areas in Colorado and Wyoming permitted the reservoir storage at that time to be conserved as a hold-over for use in 1943. In Arizona, storage in the large reservoirs in the Salt and Gila valleys, is now approximately 75 per cent of the amount held on January first, 1942. Storage in the large reservoirs, Rio Grande drainage in New Mexico, is only slightly less than that of a year ago. At present Elephant Butte Reservoir is filled to about 80 per cent of its capacity. In the San Luis Valley the storage now held in the principal reservoirs totals about 3/4 the amount held last year at this time. For the Arkansas Valley the reservoir storage is excellent with some reservoirs filled to capacity. The river flow is good and filling continues. In the South Platte drainage the amount of water held in storage at this time is double that



of a year ago. The flow of the South Platte and tributaries is well above normal and further storage is being accomplished. Taylor Park Reservoir in western Colorado has in storage about 90 per cent as much water as that of a year ago. The large reservoirs in the North Platte Valley in Wyoming also have in storage about twice the amount held a year ago. The Wheatland reservoirs on the Laramie River drainage in Wyoming has at least five times the amount of water now in storage; Wind River storage about the same; Shoshone Reservoir, near Cody, has about 80 per cent and Jackson Lake about 125 per cent in comparison with that held January 1, 1942. Because of the very favorable storage conditions in Colorado, Wyoming and the Rio Grande in New Mexico, the water supply for the areas served by these many reservoirs is well assured from this standpoint.

Summary of Snow Surveys, January 15, 1943.  
(Arizona and New Mexico Courses)

Snow Course	Location	Drainage	Snow Depth			Water Content		
			Inches			Inches		
			January 15			January 15		
			1941	1942	1943	1941	1942	1943
Frisco Divide	6 m. S. Luna	Blue R.	24.0	13.3	4.3	3.4	2.6	0.8
State Line	5 m. W. Luna	"	19.0	16.7	7.7	5.4	3.3	1.3
Nutriso	4 m. N. Alpine	San Fran. R.	11.4	13.0	4.5	2.9	3.0	1.1
Beaver Head	11 m. SW. Alpine	Castle Cr.	22.0	17.0	6.7	5.5	4.2	1.8
Coronado Trail	4 m. S. Alpine	Coleman Cr.	19.4	17.8	7.3	5.3	4.4	2.1
McNary	3 m. NW. McNary	Salt R.	15.8	11.8	0.0	5.4	3.9	0.0
Forest Dale	5 m. SW. Showlow	" "	3.9	10.4	0.0	0.9	3.1	0.0
Trout Creek	3 m. SW. McNary	" "	0.0	0.0	0.0	0.0	0.0	0.0
Milk Ranch	4 m. W. McNary	" "	8.1	9.8	0.0	2.3	3.1	0.0
Taylor Creek	13 m. NW. Chloride	Gila River	---	3.2	3.7	---	1.6	0.7
Average			13.7	12.2	3.4	3.5	3.1	0.8

✓ This report issued at Fort Collins, Colorado, January 18, 1943, by the Division of Irrigation, Soil Conservation Service, U. S. Dept. of Agriculture, in cooperation with the U. S. Forest Service, U. S. Indian Service, U. S. Weather Bureau, the Salt River Valley Water Users' Association, San Carlos Irrigation and Drainage District and other agencies and irrigation interests.



RECEIVED  
JAN 22 1964  
U.S. DEPARTMENT OF AGRICULTURE